

Far Eastern Entomologist

Number 401: 13-17

ISSN 1026-051X

February 2020

<https://doi.org/10.25221/fee.401.3>

<http://zoobank.org/References/3F9A114B-0A12-41B1-922B-580AC434A0E8>

AN ANNOTATED LIST OF THE DROSOPHILID FLIES (DIPTERA: DROSOPHILIDAE) OF KHAKASSIA

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Summary. An annotated list of 21 species in eight genera of the family Drosophilidae of Republic of Khakassia is given for the first time. The drosophilid fauna of Khakassia is compared with fauna of Tuva.

Key words: Diptera, Drosophilidae, fauna, new records, Siberia, Russia.

Н. Г. Горностаев, С. Ю. Сорокина. Анnotatedный список мух-дрозофилид (Diptera: Drosophilidae) Хакасии // Дальневосточный энтомолог. 2020. N 401. C. 13-17.

Резюме. Для Республики Хакасия впервые приведен анnotatedный список 21 вида из 8 родов мух-дрозофилид. Проведено сравнение фаун дрозофилид Хакасии и Тувы.

INTRODUCTION

There are no any published data on the drosophilid fauna of Khakassia; while totally 42 species of Drosophilidae are known from adjacent regions of Siberia: 31 species from Altai (Gornostaev, 1997; Ivannikov *et al.*, 1998; Sidorenko & Ivannikov, 2001a, 2001b) and 29 species from Tuva (Gornostaev & Kulikov, 2019).

Drosophilid flies were collected in Republic of Khakassia from vicinities of Kazanovka (53°13' N, 90°1' E) and Birikchul (53°19' N, 89°53' E) in August 2003 by Svetlana Sorokina (S) using baits. The baits were made from standard 0.5L plastic bottles with a hole cut in one side and contained mixture of pre-boiled semolina infused with brewed liquid mixture of yeast and raisin. The baits were placed under the trees. All collected specimens were stored in 70% ethanol and determined by the first author.

Here we present the first regional list of the drosophilid flies (Drosophilidae) of Khakassia. All species are recorded from this region for the first time.

LIST OF SPECIES

Family Drosophilidae

Subfamily Steganinae

Amiota (Amiota) albilabris (Roth in Zetterstedt, 1860)

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 1 ♂ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Amiota (Phortica)chi* Toda et Sidorenko, 1996**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 1 ♂, 2 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♀ (S).

DISTRIBUTION. Russia: Tuva (Gornostaev & Kulikov, 2019), East Siberia and Far East (Toda *et al.*, 1996; Sidorenko, 2001).

***Gitona distigma* Meigen, 1830**

MATERIAL. **Russia:** Birikchul, 6–20.VIII 2003, 1 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

***Leucophenga quinquemaculipennis* Okada, 1956**

MATERIAL. **Russia:** Khakassia, Birikchul, 6–20.VIII 2003, 2 ♀ (S).

DISTRIBUTION. Russia: Tuva (Gornostaev & Kulikov, 2019), East Siberia and Far East (Sidorenko, 2001). – China, Korea, Japan.

Subfamily Drosophilinae

***Chymomyza costata* (Zetterstedt, 1838)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 11 ♂, 12 ♀ (S); Birikchul, 6–20.VIII 2003, 4 ♂, 7 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Chymomyza fuscimana* (Zetterstedt, 1838)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 1 ♂, 1 ♀ (S); Birikchul, 6–20.VIII 2003, 1 ♂, 3 ♀ (S).

DISTRIBUTION. DISTRIBUTION. Widespread in Palaearctic region including Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) funebris* (Fabricius, 1787)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 28 ♂, 30 ♀ (S).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984), widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) histrio* Meigen, 1830**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 2 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 3 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) immigrans* Sturtevant, 1921**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 18 ♂, 20 ♀ (S); Birikchul, 6–20.VIII 2003, 3 ♀ (S).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984), widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) kuntzei* Duda, 1924**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 2 ♂ (S).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) testacea* von Roser, 1840**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 9 ♂, 11 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 5 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) transversa* Fallén, 1823**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 14 ♂, 12 ♀ (S); Birikchul, 6–20.VIII 2003, 3 ♂, 5 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region including Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Sophophora) alpina* Burla, 1948**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 4 ♂, 4 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♂ (S).

DISTRIBUTION. North Russia (Sidorenko, 2001, Gornostaev, 2018; Gornostaev *et al.*, 2018). – North Europe (Bächli & Rocha Pité, 1984).

***Drosophila (Sophophora) bifasciata* Pomini, 1940**

MATERIAL. **Russia:** Birikchul, 6–20.VIII 2003, 1 ♂ (S).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Sophophora) helvetica* Burla, 1948**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 4 ♂ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 2 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Sophophora) melanogaster* Meigen, 1830**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 10 ♂, 15 ♀ (S); Birikchul, 6–20.VIII 2003, 4 ♂, 5 ♀ (S).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984), widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

***Hirtodrosophila trivittata* (Strobl, 1893)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 5 ♂, 7 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 4 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region including Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

***Lordiphosa nigricolor* (Strobl, 1898)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 1 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Scaptomyza (Parascapromyza) pallida* (Zetterstedt, 1847)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 7 ♂, 7 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 4 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Scaptomyza (Scaptomyza) flava* (Fallén, 1823)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 1 ♂, 2 ♀ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 3 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region (Bächli & Rocha Pité, 1984) including Russia (Gornostaev, 1997; Sidorenko, 2001).

***Scaptomyza (Scaptomyza) graminum* (Fallén, 1823)**

MATERIAL. **Russia:** Kazanovka, 6–20.VIII 2003, 3 ♂ (S); Birikchul, 6–20.VIII 2003, 2 ♂, 4 ♀ (S).

DISTRIBUTION. Widespread in Palaearctic region including Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

DISCUSSION

Now 21 species in eight genera of Drosophilidae are known from Khakassia, all of them are recorded here from this region for the first time. Recently we found 29 species in seven genera of Drosophilidae in Tuva (Gornostaev & Kulikov, 2019). Totally 30 species of Drosophilidae are known from Khakassia and Tuva republics. Among them *Lordiphosa nigricolor* is found in Khakassia only; nine species, *Leucophenga quinquemaculata* Strobl, 1893, *Chymomyza caudatula* Oldenberg, 1914, *Ch. distincta* (Egger, 1862), *Drosophila ezoana* Takada et Okada, 1957, *D. limbata* von Roser, 1840, *D. subarctica* Hackman, 1969, *Hirtodrosophila confusa* (Staeger, 1844), *H. toyohiokadai* (Sidorenko, 1990), and *Scaptomyza unipunctum* (Zetterstedt, 1847), are found in Tuva only; and 20 species (*Amiota albilabris*, *A. chi*, *Gitona distigma*, *Leucophenga quinquemaculipennis*, *Chymomyza costata*, *Ch. fuscimana*, *Drosophila funebris*, *D. histrio*, *D. immigrans*, *D. kuntzei*, *D. testacea*, *D. transversa*, *D. alpina*, *D. bifasciata*, *D. helvetica*, *D. melanogaster*, *Hirtodrosophila trivittata*, *Scaptomyza pallida*, *S. flava*, *S. graminum*) are recorded in both Khakassia and Tuva. Thus, the fauna of Drosophilidae of Khakassia is rather similar to the fauna of Tuva.

ACKNOWLEDGEMENTS

This work was conducted under the IDB RAS Government basic research program in 2019.

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